

State of Alaska FY2008 Governor's Operating Budget

Department of Transportation/Public Facilities Highways and Aviation Results Delivery Unit Budget Summary

Highways and Aviation Results Delivery Unit

Contribution to Department's Mission

Operate, maintain, safeguard, and control the state's infrastructure system of highways, airports and harbors.

Core Services

- Winter snow and ice control, including snow plowing, snow removal, sanding, anti-icing, avalanche control, snow fencing and culvert thawing.
- Summer maintenance including: grading, pothole patching, crack sealing, leveling of heaves and dips, brush clearing, sweeping, dust control, drainage cleaning and repair, fence and guardrail repair, bridge painting and repair, and sign maintenance.
- Road and airport lighting systems maintenance, including: traffic signals, intersection and road illumination, harbor electrical service and lighting, and runway and taxiway lights.
- Roadside litter control and trash removal at rest areas, turnouts and campgrounds.
- Access control to state rights of way for driveways, access roads, signs and utilities.
- Operation of certificated airports in compliance with 14 CFR Part 139.
- Maintenance of federally mandated security at state airports, including access controls, criminal history checks and badging, security fencing, communications, and law enforcement.
- Active avalanche program.
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End Results	Strategies to Achieve Results
A: Maintain State owned roads, highways and airports to appropriate department standards. <u>Target #1:</u> Improve customer satisfaction by 3% with DOT&PF services. <u>Measure #1:</u> Change in customer satisfaction based on survey of customers.	A1: Keep urban highways passable at all times. <u>Target #1:</u> Clean up snow and ice from urban highways within 18 hours after end of snow storm. <u>Measure #1:</u> Number of hours after end of storm before urban highways are cleaned up (shoulders and intersections clear and berms pushed back). A2: Ensure regulatory compliance at rural Part 139 airports. <u>Target #1:</u> No major violations during annual Part 139 inspections. <u>Measure #1:</u> Number of Part 139 inspection violations. A3: Carry out safe DOT&PF operations. <u>Target #1:</u> 10% increase in employees successfully completing required safety training. <u>Measure #1:</u> Percent of employees completing required safety training.

Major Activities to Advance Strategies

Utilize maintenance management system • Increase preventative maintenance • Implement technologies and use of anti-icing chemical • for effective anti-icing program Increase usage of anti-icing agents	Safety training and compliance monitoring • Develop policies and procedures for accident/incident review, tracking and prevention Equipment operator training and certification • Deploy Alaska land mobile radios and receivers
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FY2008 Resources Allocated to Achieve Results

FY2008 Results Delivery Unit Budget: \$122,804,200

Personnel:

Full time	524
Part time	78
Total	602

Performance Measure Detail

A: Result - Maintain State owned roads, highways and airports to appropriate department standards.

Target #1: Improve customer satisfaction by 3% with DOT&PF services.

Measure #1: Change in customer satisfaction based on survey of customers.

Customer Satisfaction

Year	YTD Total	% Change
1998	60%	
2005	79%	31.7%

Analysis of results and challenges: DOT&PF did not conduct a survey in 2006, surveys will be conducted biannually. Customer satisfaction with the operation and maintenance of our highways and rural airport system increased significantly between 1998 and 2005. This result may have direct corollary with the maintenance budgets. In 1998, the burgeoning state fiscal problems manifested into flat line budgets that limited our ability to address maintenance problems on the roads and airports. Starting in 2003, the maintenance program began receiving additional funding in both operating and capital programs. These increased funds allowed the department to address some of the long-standing issues that the public had complained about for several years.

A1: Strategy - Keep urban highways passable at all times.

Target #1: Clean up snow and ice from urban highways within 18 hours after end of snow storm.

Measure #1: Number of hours after end of storm before urban highways are cleaned up (shoulders and intersections clear and berms pushed back).

Average number of hours to clean urban roads

Fiscal Year	YTD Total
FY 2005	15.5
FY 2006	14.7

Analysis of results and challenges: Urban highways receive priority snow and ice control service due to the large volume of traffic on these routes. Maintenance managers must ensure that maintenance personnel and equipment are mobilized to clear these routes and have them cleaned up within 18 hours after a winter storm subsides. A completed winter road provides safe driving conditions and will be either a bare road or a plowed road with an adequate amount of sand applied for traction. Intersections and turn lanes will be cleared of snow in the driving lanes.

This result is an average clean up time for the four large urban centers of the state – Anchorage, Fairbanks, Palmer/Wasilla and Juneau. Individual area clean up times ranged from 22 hours in Fairbanks to 6 hours in Juneau. Variables including severity of the snow storms and the amount of secondary roads that must also be plowed all factor into how long it takes to clean up the roadsides and intersections. For instance Fairbanks crews do a complete circuit of their Priority One roads first before spreading out to their Priority Two and Three

roads. Only after all roads have at least been plowed through will the crews return to do the clean up. Maintenance managers are challenged to apply enough resources at the right time to deal with the storm without overstressing the capabilities of the operators or over-expending funds. They must address additional needs on non-urban roads, keep crews working safely, and be ready to respond to future storms.

A2: Strategy - Ensure regulatory compliance at rural Part 139 airports.

Target #1: No major violations during annual Part 139 inspections.

Measure #1: Number of Part 139 inspection violations.

Number of major airport violations

Year	YTD Total
2004	0
2005	0
2006	0

Analysis of results and challenges: State of Alaska rural airports that provide Part 139 service (air carriers with aircraft of over 30 seats) must meet rigid Federal Aviation Administration (FAA) standards to maintain their certificates. FAA inspects each airport annually. Failures to meet FAA standards for airport operations, called "violations", can result in fines or suspension of the airport's certificate. DOT&PF's goal is to maintain the airports at a level of compliance that will ensure no violations occur.

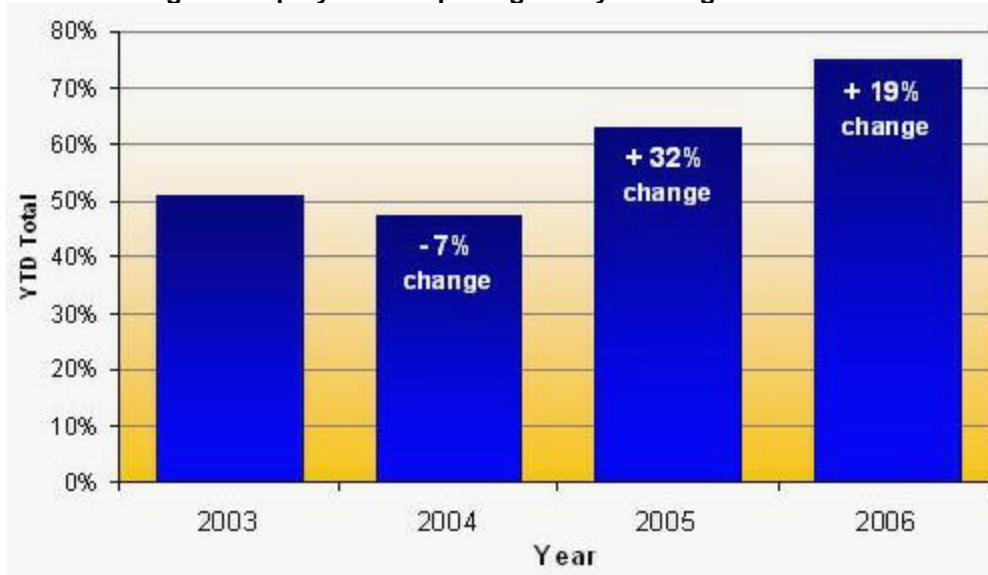
We continue to be successful in meeting this goal. Maintaining this level of service requires diligence and skillful management of airport maintenance assets and extensive training of airport maintenance crews. Costs of airport maintenance continue to rise as FAA regulatory requirements become more stringent.

A3: Strategy - Carry out safe DOT&PF operations.

Target #1: 10% increase in employees successfully completing required safety training.

Measure #1: Percent of employees completing required safety training.

Percentage of employees completing safety training



Analysis of results and challenges: Highway and airport maintenance duties are inherently dangerous. OSHA and State OSH have established numerous training requirements to help ensure that maintenance workers stay safe. Meeting numerous and changing training requirements is challenging for managers who have limited time and resources. It is difficult to provide complete and regular safety training to a workforce that is spread out across the state in 84 different locations and that has to meet its regular workload obligations. We are incrementally increasing the training of maintenance workers while still providing a full level of service on our

highways and airports. Required safety training, as identified in the department's safety manual, is being implemented over a 5-year period. Through additional safety and equipment operations training, we are reducing work related injuries and workers compensation claims.

Over the last year, the department has continued to emphasize safety. Additional training and consultation was provided through the department's cadre of safety officers. This is reflected in the increased percentage of employees receiving training.

Key RDU Challenges

New highway and airport lane miles are added to the inventory without adequate funds appropriated for their

- operation and maintenance. The department has received partial funding for some of the new lane miles but not all. This forces us to assume these unfunded new responsibilities out of existing budgets. The continuing escalation in fuel prices and utility costs results in a larger percentage of the budget is spent covering these costs and in turn reduces the amount available to cover routine and preventative maintenance items. This results in accelerated deterioration and an increasing deferred maintenance backlog.
- The cost of outsourcing portions of the maintenance work to contracts continues to rise as rates for skilled operators increases. Conversely, it is becoming more difficult to attract and hire qualified journeyman as the pay and benefits are better elsewhere.
- The baseline values in the budget for fuel and utilities are based on the FY05 budget. These values need to be increased to accurately reflect existing costs. Otherwise the department will require a supplemental budget to cover these basic needs.
- Protecting Alaska's investment in its transportation infrastructure continues to be a key concern. Lack of adequate funding over much of the previous decade has limited the extent of Maintenance and Operations (M&O's) preventative maintenance program resulting in continuing deterioration of the existing highway and airport systems. Increased traffic volumes and truck weights are causing increased deterioration and driving up maintenance costs. New environmental regulations and restrictions require costlier practices and significantly constrained timelines for repairs. As the transportation infrastructure continues to age, M&O is faced with an ever-increasing list of deferred maintenance work. Other demands include increases in the cost of labor, materials, electricity, and fuel; and the cost of maintaining new infrastructure such as airport taxiways and lighting systems and highway traffic signals. The Maintenance and Operations (M&O) budget has not kept up with these increased demands and is not adequate to sustain basic preventative maintenance of our roads and airports.
- Continuing increases in environmental regulatory requirements have resulted in costs that are not budgeted, but must be absorbed within the existing operating budget which directly impacts the ability to maintain the current level of services.
- Transportation security is a major issue following the events of September 11, 2001 and continued acts of international terrorism. Requirements for security have changed to comply with the Transportation Security Administration's (TSA) mandated emergency amendments to airport, road, and bridge security programs regulations. TSA issues new Security Directives that require immediate response and alteration of existing security procedures. This places an additional burden on the airport staff that must focus not only on security issues but also on snow and ice control and other routine airport and highway needs. Additional staff is needed to comply with the new security requirements and to intercede with TSA regulators and inspectors.
- The Federal Aviation Administration has instituted new safety requirements on turbo jet aircraft that require them to land at airports only when the braking action is fair or better. This will require our rural certificated airports to expend more time, equipment and sand and anti-icing agents to prepare the runways to meet this higher standard for all Alaska Airlines jets.
- Increased costs have been offset slightly through increased productivity and other efficiencies. They are offset largely by increased reliance on capital funds. Highways and Aviation has made maximum use of federal highway funding to achieve improvements in road surfaces (chip sealing), which decreases maintenance costs for the short term. These funds are limited to specific maintenance activities such as asphalt and bridge repair and are not available for routine activities such as guardrail repair or snow and ice control. Operating costs, however, have continued to increase and still outweigh the sum of our cost reducing efforts, the infusion of capital funds, and our operating revenues.
- The Highways and Aviation (H&A) workforce is aging and nearing retirement. Within the next four years over 30% of the H&A foreman, equipment operators and mechanics will be eligible for retirement. This is the front wave of baby boomers whose departure from the work force will leave a significant gap. There are not sufficient skilled employees within our ranks to fill these vacancies. Recruitment for these positions may also become a problem. Other states are currently unable to hire skilled personnel to fill their needs. The department previously had various grades of operators and mechanics from heavy duty to light duty and laborers. This allowed employees a natural progression

as they acquired skills. In the past, lower level positions were deleted to retain higher skilled operators and mechanics. The State must be proactive in planning for departure of skilled workforce so the level of service on our transportation system is not adversely impacted.

The department must replace the maintenance stations at Jim River, East Fork and Nome. Temporary leased

- facilities in Nome are being used; however they are expensive to operate and are insufficient for properly maintaining equipment.

Significant Changes in Results to be Delivered in FY2008

Funds are included in this budget request to cover the increasing costs of fuel, utilities, materials and employee benefits. The impact on service levels has not yet been determined. Prior to FY2006, the budget for Highways and Aviation has been flat-funded for the past 20 years at approximately \$80+ million.

Major RDU Accomplishments in 2006

Completion of the Chandalar and Willow maintenance stations.

- Completed installation of an automated bridge anti-icing system on the Knik River Bridge on the Glenn Highway.
- Resurfaced 60 miles of the Dalton Highway with gravel.
- Hired construction management firm to help coordinate major repair work on seven airport projects during summer 2006.

Continued administration of Adopt-a-Highway program with volunteer groups participating in clean up of selected segments of highways. A policies and procedures manual for Adopt-a-Highway programs is currently being developed.

Performed extensive ditching and brushing on roads and airports.

- Cut approximately 1,383 shoulder miles of brush and trees along our highway, side road and bike path rights-of-way.
- Continued partnership with Department of Labor and Workforce Development (DLWD) to improve workplace safety in DOT&PF facilities. This sister agency partnership will allow the department to consult with the state Occupational Safety and Health office and be proactive in improving facility safety.

Met current TSA security requirements for security personnel at certificated airports.

- Crack sealed 650 lane miles of highways and provided surface maintenance of either gravel or paved runways for 17 airports, replaced 2,278 luminaires, and performed repairs on 17 bridges throughout Central Region.

Established eight aggregate crushing contracts for over 223,800 cubic yards of surfacing materials in the Northern

- Region for current and future surface repairs by federal and state projects.
- Chip sealed Wrangell East Road and Zimovia Highway and performed extensive ditching and brushing.
- Overlaid some deteriorated sections of a few roads in the Anchorage, Mat-Su, and Kenai Peninsula with asphalt pavement.

Applied chip seal, hot mix, or high float asphalt to 153 lane miles of road.

- Covered 677 lane miles of highways with surface crack seal treatment or re-leveling depressed roadway surfaces by "banding".

In Haines, Skagway and Juneau completed emergency repairs of rock slides and culvert failures from the November 2005 storm. Cleared debris, cleaned ditches, cleaned culverts, and repaired drainage structures.

Completed 30 culvert replacements throughout the Northern Region.

- Installed or replaced 2,625 linear feet of guardrail and raised 6,660 linear feet of existing guardrail as a safety enhancement for the traveling public on the Alaska and Taylor Highways.

Completed .5 miles of shoulder improvements for snow storage on Klondike Highway.

- Prepared 2,000 cubic yards (CY) of crushed surfacing for Huslia airport, 2,500 CY for Nulato airport, and 1,650 CY for Koyuk airport. Graded, shaped and compacted 54 acres of runway and taxiway surfaces at eight airports.

Applied dust palliative (Permazyme, lignosulfonate and EK-36) on airport runways at five airports, which stabilized over 25 lane-miles of runway surfaces. Did critical paving repairs at the Nome Airport and general major maintenance at six other airports.

Re-striped 1,600 centerline miles of highways within Northern Region.

- Contracted the repair and upgrade of electrical and signalization equipment in the Fairbanks area. Including the replacement and modernization of two load centers, two signal controllers, over 800 luminaire lamps and fixtures, and installing five new video traffic detection units.

Contracted the chip-seal resurfacing and the application of new traffic markings to 25 lane miles of Chena Pump

- Road in the Fairbanks area. Administered the hand clearing of 73 acres of roadside brush along 125 miles of roadway by the Southeast Alaska Guidance Association (SAGA) in the interior and south central areas of the Northern Region.

- Administered the installation of over 900 milepost signs and more than 100 other (Scenic Byway, 511, and Buckle-Up) signs for the modernization of the National Highway System signage in the Northern Region.
- Chip sealed Haugan Drive and Skow Bay Loop in Petersburg. Under a Reimbursable Services Agreement (RSA) with the City of Petersburg chip sealed local streets. Completed extensive brushing and ditching of Mitkof Highway and patched damaged pavement on highway.
- Repaved 65.2 centerline miles of road.

Contact Information

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Highways and Aviation RDU Financial Summary by Component

All dollars shown in thousands

	FY2006 Actuals				FY2007 Management Plan				FY2008 Governor			
	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds
Formula												
Expenditures												
None.												
Non-Formula												
Expenditures												
Central Highways and Aviation	33,215.0	382.8	4,733.1	38,330.9	34,832.6	509.7	4,664.7	40,007.0	38,010.2	509.7	4,964.3	43,484.2
Northern Highways & Aviation	47,894.3	344.4	5,085.6	53,324.3	50,205.8	468.1	6,919.3	57,593.2	54,200.2	468.1	7,379.6	62,047.9
Southeast Highways & Aviation	10,272.2	0.0	1,623.6	11,895.8	10,538.7	0.0	1,819.5	12,358.2	11,532.7	0.0	1,865.5	13,398.2
Whittier Access and Tunnel	100.0	0.0	3,498.0	3,598.0	100.0	0.0	3,760.2	3,860.2	100.0	0.0	3,773.9	3,873.9
Totals	91,481.5	727.2	14,940.3	107,149.0	95,677.1	977.8	17,163.7	113,818.6	103,843.1	977.8	17,983.3	122,804.2

Highways and Aviation
Summary of RDU Budget Changes by Component
From FY2007 Management Plan to FY2008 Governor

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2007 Management Plan	95,677.1	977.8	17,163.7	113,818.6
Adjustments which will continue current level of service:				
-Central Highways and Aviation	-205.5	-59.4	-120.4	-385.3
-Northern Highways & Aviation	29.1	-49.8	-372.0	-392.7
-Southeast Highways & Aviation	99.7	0.0	-131.0	-31.3
Proposed budget increases:				
-Central Highways and Aviation	3,383.1	59.4	420.0	3,862.5
-Northern Highways & Aviation	3,965.3	49.8	832.3	4,847.4
-Southeast Highways & Aviation	894.3	0.0	177.0	1,071.3
-Whittier Access and Tunnel	0.0	0.0	13.7	13.7
FY2008 Governor	103,843.1	977.8	17,983.3	122,804.2